

FLORIDA HIGHWAYS



Proj 594 Rd. 13
Bradford County

Lime Rock Base, surface-treated, showing appearance before opened for travel.

Vol. II

JUNE, 1925

No. 7

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In this issue—"The New Road System Law"

Concrete Rock Announcement

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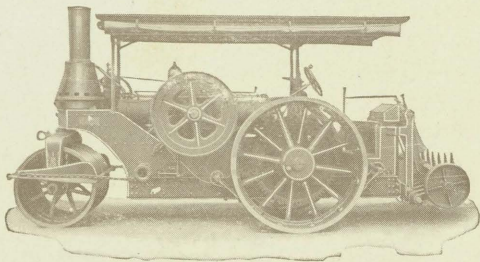
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But they must have your support

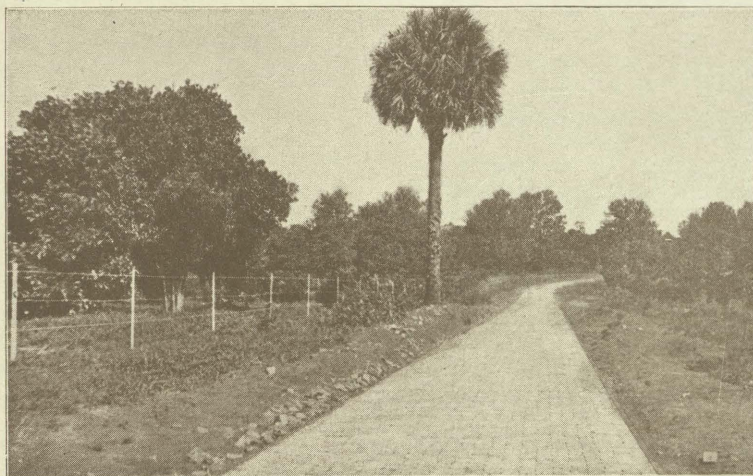
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FLORIDA HIGHWAYS



Vol. II

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The Urgent Necessity for Uniform Traffic Laws and Public Safety Devices

By THOMAS H. MacDONALD, Chief, Bureau of Public Roads

The following official notice appeared in the Lancaster (Pa.) Journal, January 22, 1796:

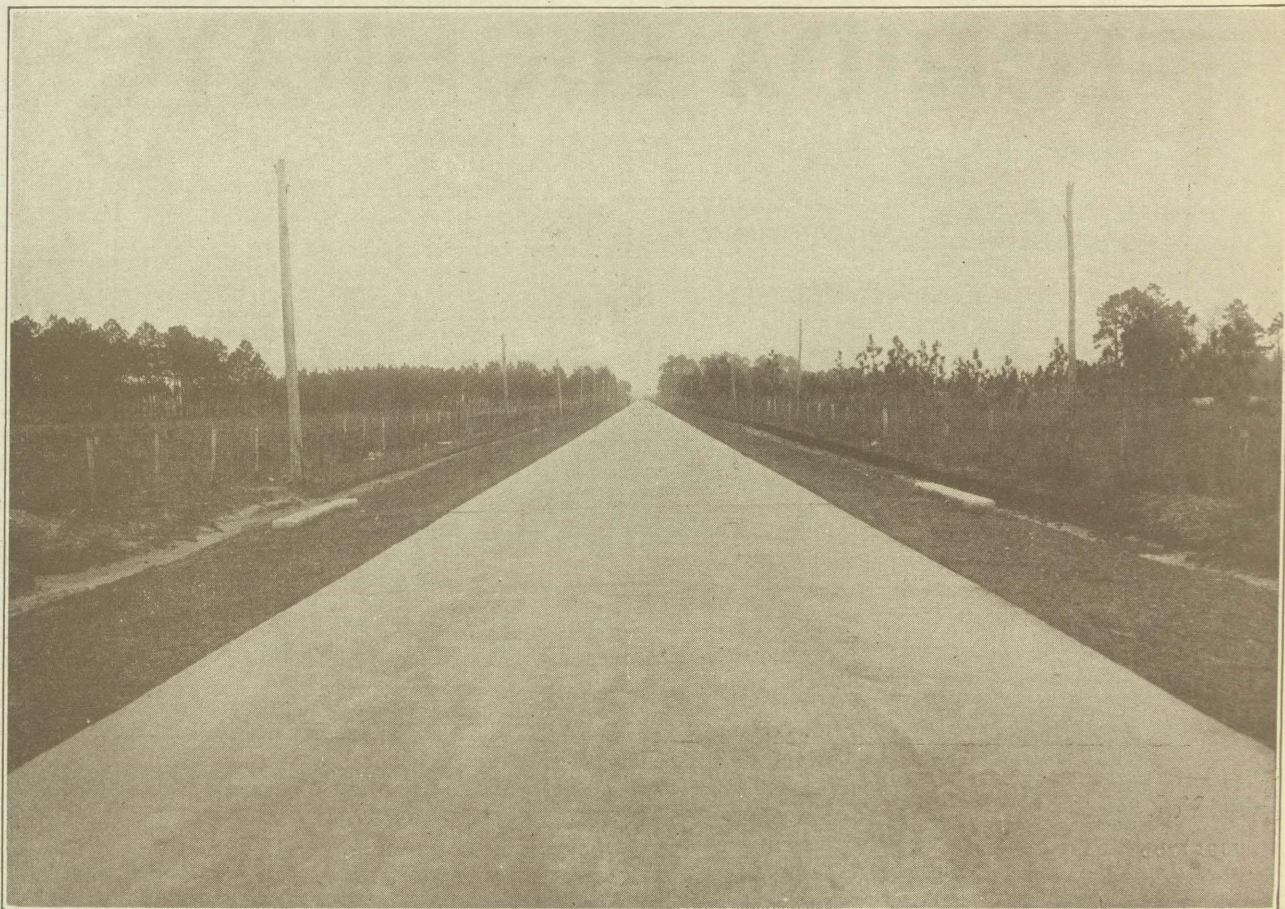
"Sec. 13. And be it further enacted, by authority of aforesaid, that no wagon or other carriage with wheels, the breadth of whose wheels shall not be 4 inches, shall be driven along said road between the first day of December and the first day of the May following in any year or years, with a greater weight thereon than $2\frac{1}{2}$ tons, or with more than 3 tons during the rest of the year; that no such carriage, the breadth of whose wheels shall not be 7 inches, or being 6 inches or more shall roll at least 10 inches, shall be drawn along said road between the said day of December and May with more than 5 tons, or with more than $5\frac{1}{2}$ tons during the rest of the year," etc., etc. * * * "that no cart, wagon, or carriage of burden whatever, whose wheels shall not be the breadth of 9 inches at least shall be drawn or pass on or over the said road * * * with more than six horses, nor shall more than eight horses be attached to any carriage, * * * and if any * * * carriage shall be drawn * * * by a greater number of horse or with a greater weight * * * one of the horses shall be forfeited to * * * said company, * * * provided always it shall * * * be lawful for

said company * * * to alter any * * * regulations * * * if on experience such alterations * * * be found conducive of public good." (Hulburt—Historic Highway.)

These were regulations by the Philadelphia and Lancaster Turnpike Company to govern the traffic on the 62-mile road between these points, the first macadamized roadway in the United States. In some detail they specify total load, load per inch width of tire, permissible power, seasonal load restrictions, and the penalties for violations. As a commentary on width, for a distance of 6 miles east of Lancaster, the road was macadamized 100 feet wide. This record of elaborate traffic regulations goes back one and one-quarter centuries in the United States, but even so is relatively recent.

"In 1621, we see James the First forbidding any four-wheeled wagon whatsoever, or the carriage of more than a ton of goods at a time, as the vehicles bearing 'excessive burdens so galled the highways, and the very foundation of bridges, that they were public nuisances.'"

"In defiance of warning and experience, Parliament again and again recurred to the devise of limiting the load. The climax of regulative activity was



Plain Cement Concrete Pavement, Federal Aid Project No. 35, Escambia County.

perhaps reached in the detailed and ever-changing code as to the construction of the vehicle itself, and more especially of its wheels. In the interminable series of enactments, amendments, repeals, and reenactments of the eighteenth century, we watch successive knots of amateur legislators laying down stringent rules as to the breath of the wheel; the form of its rim; the use of iron tires and headed nails; the height of the wheel; the position of the felly, the spokes and the axle; the space between each pair of wheels, and the respective lines of draft between back wheels and front. Throughout this tangled skein of legislation, the mass of which must be seen to be believed, we discover practically one and the same implicit assumption, that the wheeled carriage was an intruder on the highway, a disturber of the existing order, a cause of damage—in short, an active nuisance to the roadway—to be suppressed in its most noxious forms and, where inevitable, to be regulated and restricted as much as possible.” (Webb—English Local Government.)

Through the seventeenth, eighteenth and nineteenth centuries the Anglo-Saxon has been building up and tearing down regulations, and at the end of this, the first quarter of the twentieth, we find ourselves with the problem pending and labeled “urgent.” It is for us first to get a sane perspective—to evaluate the real principles revealed through the more than three centuries, and to pray for a liberal sense of humor that we do not force ourselves into

an absurd attitude. Transportation is one of the big, elemental necessities of humanity to be provided. The physical process of transportation produce not one problem but an infinite number of problems. There is no complete or final answer any more than there is a permanent solution to the food problem or any other problem of living. Safety is neither a cause or effect. It is an attribute—a characteristic of properly functioning processes. When this is being accomplished, society has done what it can to protect the individual. After this, safety lies in the individual. It comes to us, the highway officials of State and nation, to preserve by the grace of humor and good sense a sane outlook, to recognize that we can not decide the forms of transportation the public will provide and utilize. Deep running currents, over which we have no control, will determine. It is given to us to assist or to retard the perfecting of some of the processes of highway transport. We may clear the way or place obstacles in the path of economical progress, but when we as individuals or as a group shall relinquish to others our duties and responsibilities, the value of our service will be measured by our contribution to the economy and utility of transportation generally and of highway transport particularly. Unless there be maintained a fair, broad-minded outlook, tempered by the truths that have come out of the past and tuned to understand the true necessities of the present, we cannot hope to plan well for the future or to leave a record of in-

telligent, successful service. No proud record can be written in narrow and hampering restrictions on transportation or in a failure to provide facilities justly required. Proper regulations should direct and assist, not restrict, development. These are necessary, but they must be based on the most careful analysis of cause and effect, of the long time trend and the temporary circumstance.

It has been pointed out that traffic regulations are at least three centuries old with the Anglo-Saxon. In that time there have been present all of the time one or more of these five major conflicts, out of which has grown the demand for traffic regulations and laws. The general tendency through the years has been to say "thou shalt not." This analysis segregates the various conflicts we must face, and by examples of outstanding importance at the moment sets up the proposition that highway transport economy, including safety in its broadest sense, is a matter of executed plans adequate to meet the demands. Economy and safety are matters, in a major sense, of facilities. Restrictive laws or regulations are only an auxiliary to prevent and to deter by fear of punishment the improper use of proper facilities. Here are the conflicts that are to be met:

1. The conflict between the vehicle and the road.
2. The conflict between different forms of transportation.

3. The conflict between different groups within each form.

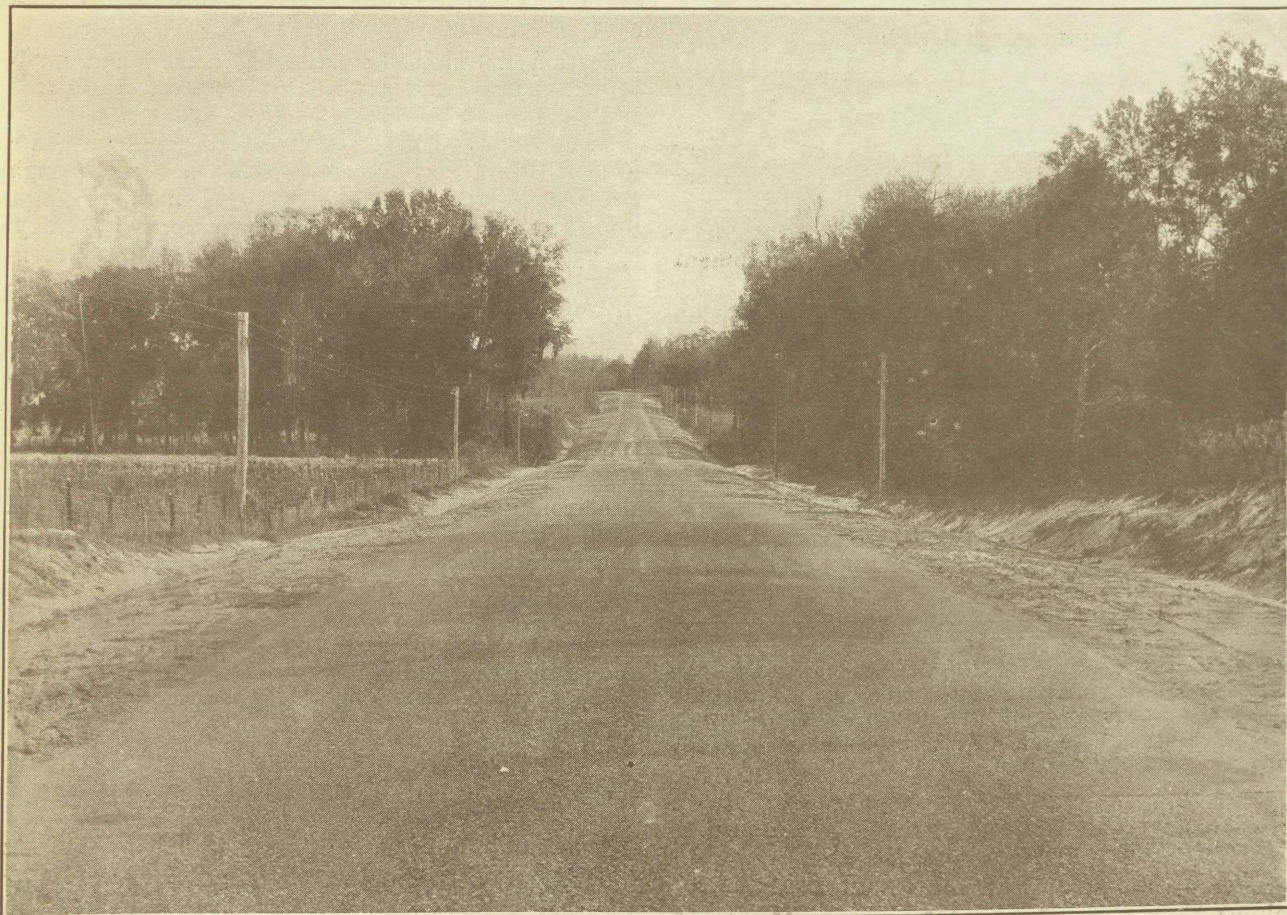
4. The conflict between society and each form of transportation.

5. The conflict between human attributes and the elements of each form.

The Conflict Between the Vehicle and the Road

The conflict between the vehicle and the road called forth the earliest traffic laws and regulations. The laws were framed upon the premise that the vehicle was an intruder upon the road, and that its use was to be restricted as much as possible. This began about 1631, and the same principle is perpetuated in the laws in effect in 1924 in some of the States, i. e., laws are in effect and others are proposed which restrict the proper utilization of available vehicles. Highway transport cannot develop its greatest and most economical service under such conditions. In the adjustment of the vehicle to the road, and this combination to the transport needs of the nation, lies progress. The Highway Transport Committee of this Association, in joint conferences with a like committee representing the National Automobile Chamber of Commerce, has approached this phase of the general subject from the angle of neither the road nor the vehicle, but from that of transportation economy. Careful consideration has been given

(Continued on page 8)



Surface-Treated Lime Rock Base on Road No. 2, in Marion County.



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B. A. Meginniss, Attorney for the Department,
Editor and Business Manager



ROAD LEGISLATION

Just as we go to press the Legislature has passed and the Governor has approved an Act amending Chapter 9311, Acts of 1923, which declared, designated and established a system of State roads.

The full text of the Act is as follows:

AN ACT to amend Section 1 of Chapter 9311, Laws of Florida, approved June 8, 1923, entitled "An Act declaring, designating and establishing a system of State Roads, providing for the location thereof, and providing that such roads when located and constructed shall become and be the property of the State."

Be It Enacted by the Legislature of the State of Florida:

Section 1. That Section 1 of Chapter 9311, Laws of Florida, approved June 8, 1923, entitled "An Act declaring, designating and establishing a system of State Roads, providing for the location thereof, and providing that such roads when located and constructed shall become and be the property of the State," be and the same is hereby amended so as to read as follows:

Section 1. That the following named and numbered roads be and are hereby declared, designated and established as State Roads:

Road No. 1. Extending from the Alabama State Line at Nunez Ferry to Jacksonville, passing through Pensacola, Milton, Crestview, DeFuniak Springs, Bonifay, Chipley, Marianna, Chattahoochee, Quincy, by or near Havana, Tallahassee, Monticello, Greenville, Madison, Live Oak, Lake City, Sanderson, MacClenny and Baldwin.

Road No. 2. Extending from the Georgia State Line north of Jennings to Fort Myers, via Jasper, White Springs, Lake City, High Springs, Gainesville, Ocala, Leesburg, Lisbon, Grand Island, Eustis, Mt. Dora, Plymouth, Apopka, Orlando, Kissimmee, Haines City, Bartow, Arcadia, and Olga Bridge; also from Leesburg to Lakeland, via Mascotte, Groveland, Buck Hill, Polk City, Foxtown to Lakeland also from Silver Lake Forks, about four miles east of Leesburg, Lake County, via Tavares to Mount Dora, said extension from Silver Lake Forks via Tavares to Mount Dora to be built with county funds and with Federal aid.

Road No. 3. Extending from the Georgia State Line at a point on the St. Mary's River known as Wild's Landing to Orlando, via Jacksonville, Orange Park, Green Cove Springs, Palatka, East Palatka, Crescent City, DeLand and Sanford.

Road No. 4. Extending from the Georgia State Line south of Folkston to Miami, via Hilliard, Callahan, Jacksonville, St. Augustine, Bunnell, Daytona, Titusville, Fort Pierce, West Palm Beach and Fort Lauderdale.

Road No. 4-A. Extending from Miami to Key West via Key Largo, provided, on that portion of the road south of Dade County, Monroe County shall expend \$2,000,000.00 including the amount already expended on said road and in addition to said \$2,000,000.00 shall provide one-third of the cost of the bridges from No Name Key to Knights Key and from Grassy Key to Lower Maticumbe.

Road No. 5. Extending from High Springs to Fort Myers, via Newberry, Archer, Williston, Dunnellon, Inverness, Brooksville, Lutz, Tampa, Riverview, Bradenton, Sarasota, Venice and Punta Gorda.

Road No. 5-A is the extension from High Springs to Perry, via Fort White, Branford and Mayo.

Road No. 6. Extending from the Alabama State Line south of Dothan to Port St. Joe, via Campbellton, Marianna, Altha, Blountstown, Scotts Ferry and Wewahatchka.

Road No. 7. From Pensacola to Alabama State Line at Flomaton.

Road No. 8. Extending from Haines City to Fort Pierce, via Lake Wales, Frostproof, Avon Park, Sebring, DeSoto City, Lake Annie and Okeechobee City.

Road No. 9. Extending from the Georgia State Line south of Quitman, via Madison, to a point on Road No. 35, near Shady Grove.

Road No. 10. Extending from the Georgia State Line near Beachton to Pensacola, via Tallahassee, Woodville, Newport, and as near St. Marks as practicable, and thence around the coast to Panacea Springs, St. Teresa, Lanark, also via Wakulla, Crawfordville, Sopchoppy, Carrabelle, Apalachicola, Port St. Joe, Panama City, near mouth of Choctawhatchie River, Freeport, Portland, New Valparaiso, Camp Walton, and thence into State Road No. 1 at or near Milton and thence over State Road No. 1 connecting with Pensacola.

Road No. 11. Extending from a point on the Georgia State Line south of Thomasville via Monticello to Capps.

Road No. 12. Extending from the Georgia State Line on the Bainbridge and Quincy Road via Greensboro, Bristol and to East Point.

Road No. 13. Extending from Cedar Key to Yulee in Nassau County, via Bronson, Gainesville, Starke, Baldwin and Callahan.

Road No. 14. Extending from a point on Road No. 19, at the Suwannee River Bridge, near Old Town to Hastings on Road No. 4, via Trenton, Newberry, Gainesville and Palatka.

Road No. 15. Extending from a point on Road No. 10, at or near Newport, thence southerly along the gulf as near as practical to St. Petersburg, via or near as practical to the mouths of the Steinhatchee and Suwannee Rivers, Cedar Key, and as near as practical to the mouth of the Crystal River, Homosassa, Weekiwachee Rivers, Aripeka, Hudson, New Port Richey, Tarpon Springs, Clearwater and Largo. And also from Brooksville to Aripeka, via Spring Hill.

Road No. 16. Extending from Ocala to Road No. 5, via Dunellon thence to Crystal River.

Road No. 17. Extending from Haines City to Clearwater, via Lakeland, Plant City, Tampa and Oldsmar.

Road No. 18. Extending from Sarasota to Lake Annie, via Arcadia; and Road No. 18A. Extending

from a point on Road No. 5 near Bradenton, via Oneco intersecting Road No. 18 at a point about thirty miles east of Sarasota.

Road No. 19. Extending from Tallahassee to Ocala, leaving out of Tallahassee on the St. Augustine Road, thence to or near Chaires, via Waukeenah, Capps and Lamont, thence direct to Perry, Cross City, Old Town, Chiefland, Bronson and Williston.

Road No. 20. Extending from Cottondale to Panama City, via Round Lake and from Cottondale north to connect with Road No. 6.

Road No. 21. Extending from Daytona to DeLand.

Road No. 22. Extending from Orlando to Indian River City, via Ft. Christmas, also from Orlando to Crystal River, via Winter Garden, Clermont, Mascotte, Groveland, Bushnell and Inverness.

Road No. 23. Extending from Belleview to Plant City, via Bushnell and Dade City.

Road No. 24. Extending from Kissimmee to Melbourne, via St. Cloud.

Road No. 25. Extending from Olga Bridge to West Palm Beach.

Road No. 26. Extending from a point on Road No. 8 near Lake Annie to Fort Lauderdale via Moore Haven.

Road No. 27. Extending from Ft. Myers to Miami.

Road No. 28. Extending from Lake City to Bunnell via Palatka, Lulu, Lake Butler, Starke and Keystone Heights.

Road No. 29. Extending from Bithlow to Moore Haven via Holopaw, Keinesville and Okeechobee.

Road No. 30. Also from Frostproof to Vero, via Dougherty Crossing and Yeehaw.

Road No. 31. Road from Ocala to Waldo, via Citra, Island Grove and Hawthorne.

Road No. 32. From Bradentown to Avon Park by way Parrish, Fort Green and Wauchula.

Road No. 33. Extending from the Alabama State Line south of Florala via Laurel Hill to a point on Road No. 1 at or near Crestview.

Road No. 34. Extending from Brooksville to Dade City via Spring Lake and Blanton.

Road No. 35. Extending from the Georgia Line through Ashville, Greenville to a point on Road No. 19.

Road No. 36. Extending from Leesburg to Inverness via Wildwood and Rutland.

Road No. 37. Extending from the Alabama State Line at Dixonville via Allentown, to State Road No. 1 at Milton.

Road No. 38. Extending from Road No. 2 at Weirsdale, east to Umatilla in Lake County by way of Stark's Ferry.

Road No. 39. Extending from the Alabama Line through Bonifay to Vernon and thence southerly to Phillips Inlet.

Road No. 40. Extending from the Alabama State Line south of Florala to DeFuniak Springs, and thence southerly to a point on Road No. 10.

Road No. 41. From Milligan, via Baker and Blackman to the Alabama State Line.

Road No. 42. Extending from a point on Road No. 1 north of Aucilla, through Aucilla to Lamont.



Bituminous Macadam, State Project No. 570, Road No. 5.

Road No. 43. Extending from a point on the Georgia Line southerly through Miccosukee to a point on Road No. 1 and over same easterly to a point north of Lloyd and then southerly through Lloyd and Wacissa to a point on Road No. 15.

Road No. 44. Extending from Sanford to Mims in Brevard County, via Geneva and Southmere.

Road No. 45. Extending from Ocala to Daytona.

Road No. 46. Extending from Alabama State Line near Flomaton, Alabama to Baker, Florida, via Jay, Berrydale and Munson.

Road No. 47. Commencing at a point on Road No. 4, south of Goodbys Lake in Duval County, running thence southerly as near as practicable along the St. Johns River to a point on Road No. 14 thence to East Palatka.

Road No. 47-A. Palatka to Ocala via Rodman, Orange Springs and Citra.

Road No. 48. Extending from St. Augustine to Starke, via Green Cove Springs.

Road No. 49. Extending from Georgia State Line approximately north of McClenny to Newberry via McClenny, Manning, Sapp, Raiford, Lake Butler, Worthington Springs and Alachua.

Suwannee River Scenic Highway, Extending from Branford to Jasper, via Live Oak.

Road No. 51. Extending from Orlando to Brooksville via Groveland, Riverland and Spring Lake.

Road No. 52. Extending from the Alabama State Line, north of Graceville through Graceville and to

the Washington County Line north of Chipley, thence through Chipley to Bridge across North Bay near Southport, and extending from Graceville via Jacobs to connect with Road No. 6.

Road No. 53. Extending from Camp Walton along Santa Rosa Sound as near thereto as practicable to Town Point.

Road No. 54. Extending from Crestview by way of Valparaiso to Camp Walton on Road No. 10.

Road No. 55. Extending from a point at or near Pierson on Road Number Three to Road Number Two at Smithwick's Filling Station in Lake County through Astor, Umatilla, Eustis, Tavares, Minneola, and Clermont.

Road No. 56. Extending from Ellisville to Lake Butler via Providence.

Road No. 57. Extending from New Smyrna to Sanford.

Road No. 58. Extending from the Georgia State Line near Darsey connecting with Road No. 1 at or near Havana.

Road No. 59. Extending from Zolfo Springs via Crewsville, DeSoto City, north side Lake Istakpoga, thence the most acceptable route to a point on State Road No. 8 at or near west end of the Kissimmee River Bridge.

Road No. 60. Extending from Alabama Line south of Geneva to DeFuniak Springs.

Road No. 61. Extending from Polk City to Auburndale.

Road No. 62. Extending from Road No. 7 on Alabama State line, via Berrydale, Munson, Baker and connecting with Road No. 1 at Milligan.

Provided that the roads designated as Roads numbered from 1 to 5 inclusive, and Roads No. 8 and 19, said Road No. 19 to be built after Roads No. 1, 2, 3, 4, 5, and 8 have reached that stage of construction that convicts and materials can be transferred on said Road No. 19 as will not interfere or delay the completion of said roads numbered 1, 2, 3, 4, 5, and 8 shall be first completed before any new contracts are made for work on any of the other roads herein provided for, but this proviso shall not be construed to interfere in any way with any contracts already made with any county for construction of any part of any road or roads herein designated, nor with the construction or maintenance of such other roads as have heretofore been designated by the State Road Department and approved by the National Secretary of Agriculture as included in the State and Federal Seven Per Cent Highway System as follows:

Road No. 6. Alabama Line to Marianna.

Road No. 7. Pensacola to Alabama Line at Flo-maton, 44 miles.

Road No. 10. Tallahassee to Georgia Line, 18 miles.

Road No. 13. Baldwin to Gainesville, via Starke, 47 miles.

Road No. 14. Gainesville to Hastings, via Palatka.

Road No. 16. Ocala to Road No. 5, 30 miles.

Road No. 17. Haines City to Tampa, 57 miles.

Road No. 21. Daytona to DeLand, 22 miles.

Road No. 24. Kissimmee to Melbourne, 53 miles.

Road No. 27. Fort Myers to Miami.

Also 45 miles to be designated by the State Road Department and Federal Government as part of the Federal Seven Per Cent System and such further mileage of roads as may be in the future allowed, allotted and designated by the State Road Department and Federal Government as part of the Federal Seven Per Cent System.

Provided, further, that the construction shall begin as soon as possible on roads numbered 5-A, 10, 15 and

20, 28 and that part of Road No. 11, extending from the Georgia State Line to Monticello, and Road No. 47 commencing at a point on Road No. 4 south of Goodleys Lake in Duval County, running thence southerly as near as practicable along the St. Johns River to a point on Road No. 14 thence to East Palatka, when that stage of construction has been reached on Roads 1 to 5 inclusive, and 8 and 19, when labor and equipment may be transferred from Roads 1 to 5 inclusive and 8 and 19, that will not delay the construction of said Roads 1 to 5 inclusive and 8 and 19.

Provided, further, that nothing in this Act shall prohibit or interfere with the State furnishing the engineers and constructing or supervising the construction of any part of said system of State road at any time and in any case, where the county or counties or any road and bridge district, or districts, through which the road or bridge runs and extends, provides all the necessary money, labor and means, including the engineering costs, necessary for the construction thereof.

Provided, further, that the State Road Department shall be and is hereby authorize and empowered to survey and locate the line or route of any State road or section of any State road herein numbered and designated, whenever in the judgment of said Department, the doing of such work shall be found to be practicable and to the best interest of the State. Whenever such survey and location shall be made and adopted by the said Department, a map or plat of such survey and location, certified by the Secretary and Chairman of the Department, shall be filed in the clerk's office of each county, through which said State road or section thereof, so surveyed and located shall run.

Section 2. This Act shall take effect immediately upon its becoming a law.

Section 3. That after the completion of the primary preferential roads as provided in this Act, the State Road Department is hereby authorized to construct any uncompleted portion of Road Number 13.

The Highway Engineer's Creed

I BELIEVE that transportation is the keystone of the structure of civilization which is built of school, and church, and court, and market place upon the twin foundations of the home and productive industry.

I BELIEVE that highway transportation is a necessary and integral part of this connecting stone in civilization's arch and is coequal with other forms of transportation in sustaining the body of the structure.

I BELIEVE that my mission, as a highway engineer, is to assist in shaping and improving the highways of my country, in harmony with those who provide the vehicles which are their necessary complement, to the end that, jointed with other means of transportation, they may meet the need of our people for easy, quick, and untrammelled transportation.—Arizona Highways.

UNIFORM TRAFFIC LAWS

(Continued from page 3)

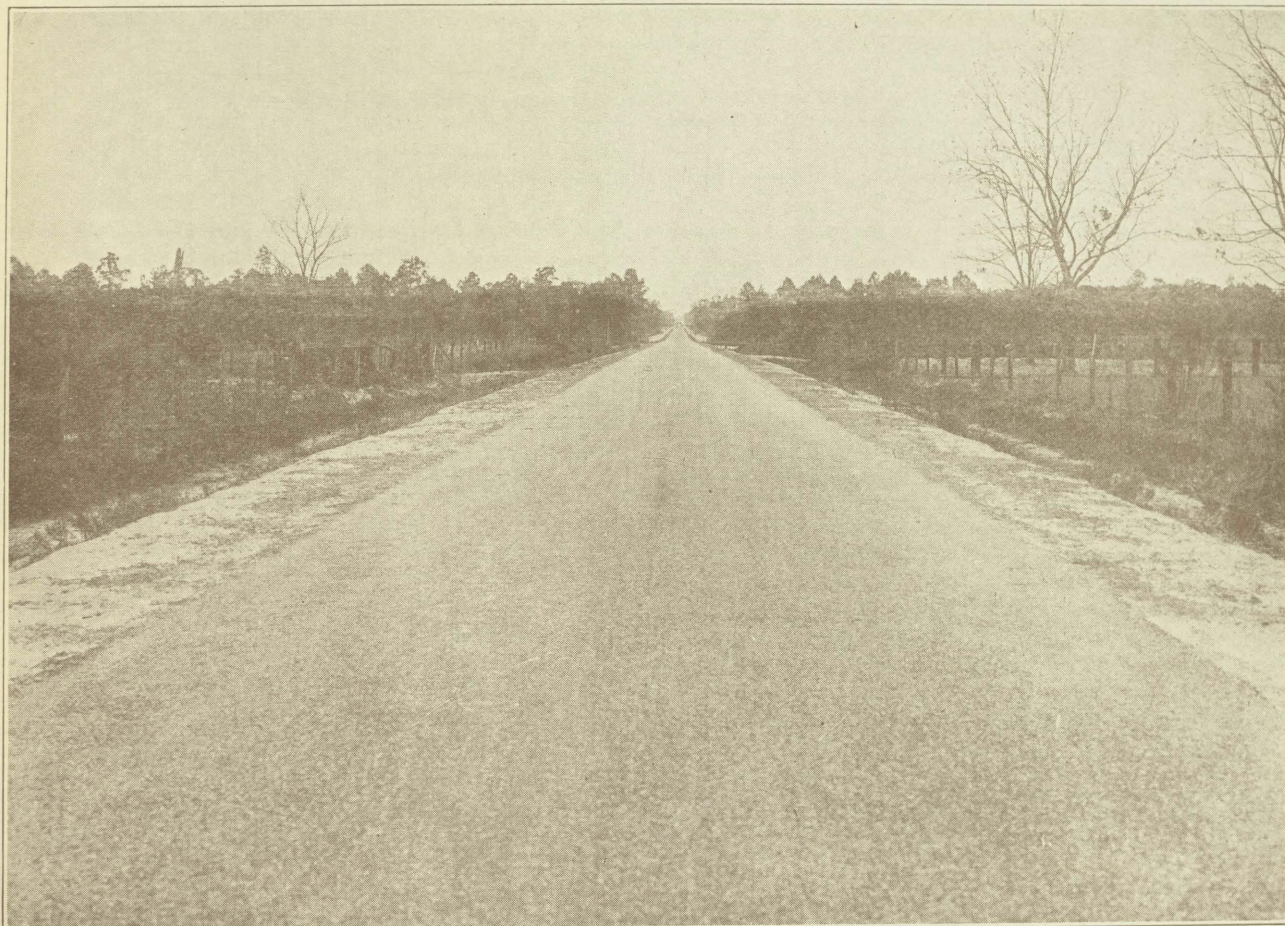
different districts having wide variations in their needs for highway transport service. The tentative report is to be presented at this meeting, recommending a classification of roads, each class to carry specified maximum loads. These loads have been determined by detailed transport surveys in different areas, and by special studies of commodity hauling, particularly of agricultural products such as milk. Major consideration has been given the fact that for any well-designed highway the road cost per unit carried is such a small percentage of the total that the only material possibility to decrease highway transport costs lies in lessening the per ton mile and per passenger mile vehicular costs, grouping all kinds of traffic. The report makes recommendations as to wheel concentrations, speeds, tires, and other details which are based upon the physical research and investigations of a number of the State departments and the Federal Bureau—of the relationships between the road and the vehicle, and the effects each upon the other. So far as the committee is advised, this is the first attempt in 300 years of regulations directed against the vehicle to apply the results of scientific research in the formulation of regulatory principles to the constructive end of greater transportation economy.

But why is there urgent public need for uniformity of these regulations between the States? The reason does not lie in long distance hauling. The big percentage of highway use by the heavier types, such as bus and truck movements, and by the private automobile is not and will not be long distance. It is a shuttle traffic, in and out, of the population centers, but all boundary lines are disregarded. In Connecticut, on the Boston Post Road, the State average traffic shows State licenses of 90.1 per cent of the passenger cars and 89.9 per cent of the trucks, leaving an average of only 10 per cent foreign licenses for both passenger cars and trucks. On the same road near the State line the State licenses drop to 52 per cent for passenger cars and 51.4 per cent for trucks, leaving 48 per cent and above foreign licenses for both trucks and passenger cars. In Pennsylvania, on the Lincoln Highway, there is the same story, with somewhat changed percentages. Near the State line the foreign licenses are: trucks, 41.4 per cent, and passenger cars, 46 per cent.

Uniformity of laws and regulations has long been urged for tourist and long distance travel. This is important, but here are the records which show what large injustice is done the really local traffic on the borders of every State if the laws and regulations are not uniform between the States.



Bituminous Macadam on Road No. 4 in St. Lucie County, Federal Aid Project No. 36-A.



Bituminous Macadam Pavement, Federal Aid Project No. 32, Built with State Forces.

The Conflict Between Different Forms of Transportation

With reference to the conflicts which exist between highway transport and other forms of transportation, only one matter of traffic regulation will be touched upon. A number of States have enacted laws requiring all motor vehicles to stop before crossing any railroad at grade. Undoubtedly, there will be attempts made to write this same restriction into the laws of many States this winter. The North Carolina law reads, "That no person operating any motor vehicle upon a public road shall cross, * * * any railroad or interurban track intersecting the road at grade, * * * without first bringing said motor vehicle to a full stop at a distance not exceeding 50 feet from nearest rail."

This law is a grave error in traffic regulation. It is unjust and unfair to highway traffic. There are crossings at which the highway traffic should stop and those at which the trains should stop, but a law requiring all highway traffic to stop at every rail crossing outrages the sense of justice of every fair-minded citizen and breeds contempt for all regulatory laws. It is time to stop monkeying with the safety of people. It is time to stop experimenting with human life. There is a wide contrast in the Oregon stop law, which sets up this principle: "It shall be the duty of the public service commission to investigate conditions surrounding all railway cross-

ings with streets and public highways at grade and determine at which of such crossings public safety reasonably requires that vehicles on the streets and highways should come to a full stop."

The one law labors under the handicap of individual resentment and public injustice; the other appeals to the good judgment of the average citizen as a safeguard, provided after careful investigation of the conditions at the particular crossing. Further, it does not breed contempt for other traffic regulations. There is sufficient possibility of reducing the hazard at grade crossings on certain classes of highways and for specific crossings to make desirable the adoption of a sane, uniform law, lodging authority in the State highway department and the State railroad commission jointly to determine after investigation at what grade crossings highway traffic should be stopped; and further, to determine at what grade crossings trains should be stopped—the relative traffic and public convenience to be the facts upon which the decision shall rest.

The North Carolina and similar "stop" laws are based on tradition, not on existing facts. The presumption that all rail traffic is superior, and therefore should have right-of-way over all highway traffic, is fallacious. No one denies right-of-way to main line and long distance rail traffic, but the major highways cross at grade many more branch rail lines than main rail lines. It is time we began to think in terms

of transportation economy. Some conception of major highway traffic is shown by the following peak loads:

Peak Loads—Total Vehicles	24-hr. Max. day	Max. hour
Boston Post Road, Greenwich, Conn....	15,219	1,167
*Lincoln Highway, Sta. 57, Penn.....	12,114	1,097
South of Portland, Me., Sta. 406.....	10,671	813
*November to April only.		
Truck Peak Loads	Max. day	Max. hour
Boston Post Road	1,195	97
†Lincoln Highway	839	75
Portland, Me.	556	45
†November to April only.		

Any arbitrary interference with the flow of such traffic jeopardizes the safety of thousands. The highway and railway officials must together meet these questions fairly on the basis of existing facts. It is only with the hope that this cooperation can be brought about on a much larger national scale that such a general law is suggested. It would at once hasten crossing protection, for no stop order would be issued without first installing adequate warning and protective devices, and on many main highways it would be found impossible both from the operating and from the safety standpoint to stop the traffic. There are only two answers to such a situation—separate the grades or stop the rail traffic.

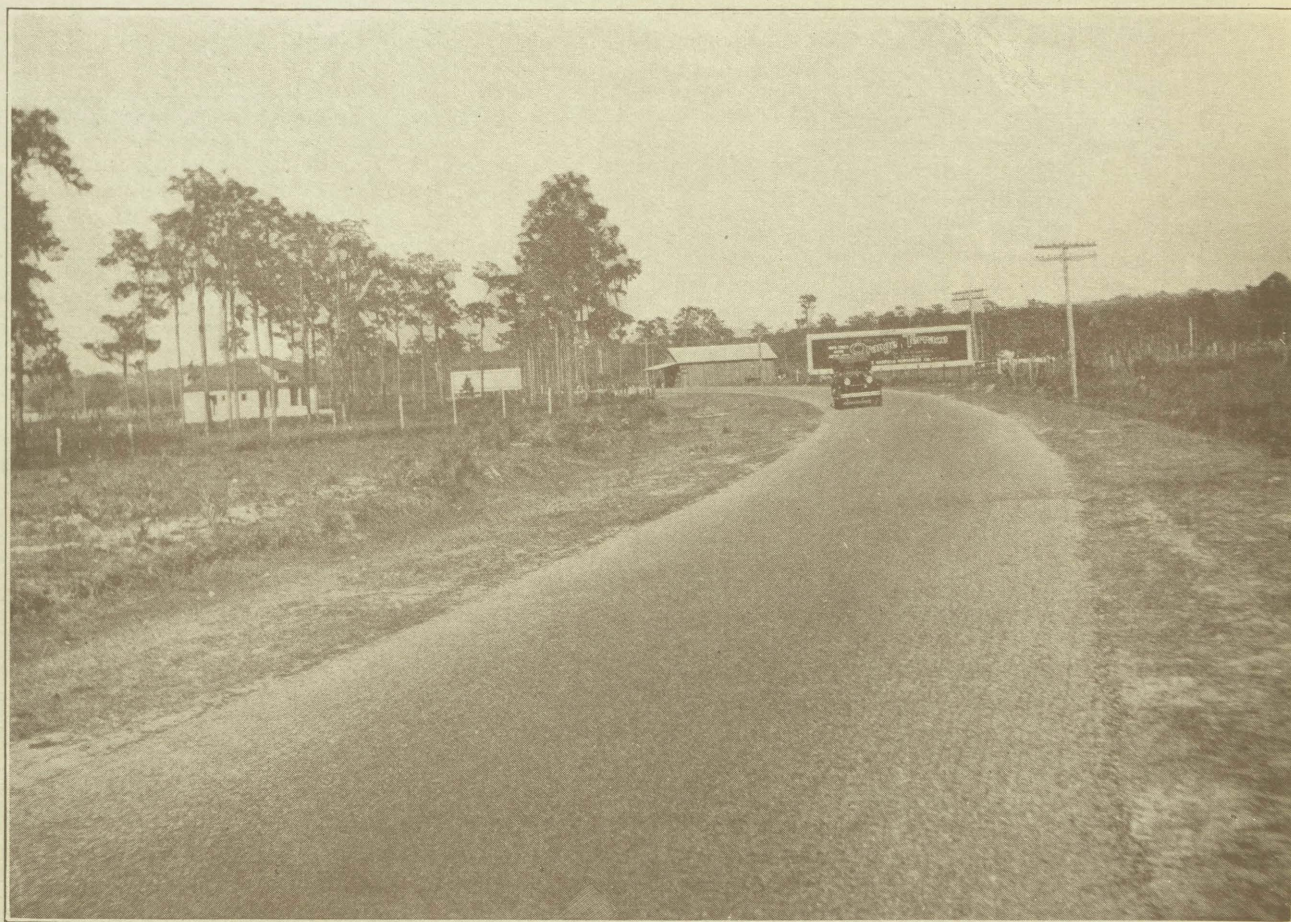
The Conflicts Between Different Groups Within Each Form

In the traffic regulations report referred to before,

the highway facilities needed by motor truck, motor bus, automobile and other vehicles have been carefully considered, and the tentative draft represents a concurrence of the opinion of representatives of these major groups. Limitations have necessarily been recommended, but for the single purpose of transport economy taken as a whole.

The Conflict Between Society and Each Form of Transportation

Congested street and highway traffic has brought many people into conflict with the motor vehicle. This is not strictly true, for it is really a conflict between people themselves. Too many people are simultaneously trying to use highway and street facilities for too many purposes in too many ways. The motor vehicle is only the mechanical tool. Here again it is a question of inadequate facilities. No detailed discussion is necessary. The only permanent relief must come through traffic planning, city and country alike. Adequate planning can only follow a complete understanding of the facts, and this means a highway transport survey on broad lines. But the big, important point is that the main highway system for the States can no longer be dealt with on the basis of sections of highway, separated by urban streets. The States will have to stop dumping traffic in an ever-increasing flow at the corporation lines. Whether this traffic is carried around or through, it means new, expensive facilities. It must be remem-



Bituminous Macadam, Federal Aid Project No. 17, Road No. 5, Manatee County.

bered that the motor vehicle is a potential builder of property values, but it is also a potential destroyer, through congestion which destroys its own utility and economy, particularly of time.

The most serious tendency in recent legislation has been to divert gas taxes from the completion and maintenance of the main State highways and out from under the jurisdiction of the State highway departments. The only way to meet this is to stand on the single principle of transportation economy and to plan the system as an unbroken network.

The Conflict Between Human Attributes and the Elements of Each Form of Transportation

It is common knowledge how traffic laws and regulations vary from State to State, but the situation is not hopeless. Test this phase by the same standard of transportation economy. By this measure the operator cannot be separated from the vehicle. Taken as a unit, the operator and vehicle must function together. The vehicle cannot think, neither can the operator, under emergency conditions. He must act without time to think. His processes are reflex.

Uniformity between the States of all those matters of law, regulation and safety devices which involve the human attributes in the operation of the vehicle is highly necessary to promote economy with safety. You will note that this discussion is not supported upon the great necessity and responsibility of the highway officials to do everything possible to decrease accidents of all kinds and to prevent the loss of life. To what extent this may be done is problematic. Such statistical evidence as exists points clearly to human attributes as the prolific causes of accidents. The accidents caused by recklessness or

carelessness on the part of motor vehicle driver or pedestrian probably comprise between 80 and 90 per cent of all accidents. Better facilities for traffic flow and drastic enforcement of uniform rules are both necessary, and everything else that will help even in a small way to promote safety. But this is only one of the problems. The motor-using public demand uniform laws and other conditions under which to develop to the highest degree highway transport. This means:

- (a) Interstate continuity of routes.
- (b) Uniform vehicle operating laws.
- (c) Uniform loadings for similar classes of roads.
- (d) Uniform markings and signs.
- (e) Uniform color code.

There is only one plan of successful action for this whole matter. The highway officials who have been tied down to the business of building roads must take over their operation as public utilities. The planning of and for moving traffic economically and safely will either be done by engineers or by police. The engineering approach is to provide adequate facilities. The police approach is to restrict the use of existing facilities. Under which plan will the public be best served? There will always be the necessity for both to work in cooperation, but traffic congestion and transportation waste must be eliminated by adequate facilities.

At this point it probably occurs to many of the States that here are national questions which they are being urged to meet. The position of the bureau on these questions is the same as on the Federal-aid construction work. They are all phases of a single big problem. The time has come to do these things. The highway departments must not yield the admin-



A section of surface-treated Florida Lime Rock Base on State Road No. 2, built with State Forces.



Section of Plain Cement Concrete Pavement in St. Lucie County, State Road No. 4, Federal Aid Project No. 36-B.

istrative position won. These definite propositions are made to this Association by the Bureau of Public Roads to focus attention on concrete steps to be taken:

1. The Bureau will recommend to the secretary the appointment of a joint board of representatives of the Association and the Bureau to carry forward the naming and numbering on a national scale of the system now established.

2. The Bureau is of the opinion that "inter-State highways" is a fairer descriptive term for the main system than Federal-aid highways.

3. The Bureau will agree to help this same board or other representatives of the Association to obtain uniform motor vehicle legislation in the details where exact or approximate uniformity is necessary.

4. Finally the Bureau will agree to a Federal-aid project for each State on application of the State to mark and sign the through routes, and to erect uniform safety or guarding devices where dangerous conditions exist—this in advance of construction and subject to the qualification that we may need some new legislation to make this possible.

This suggestion will not be misunderstood. The public has not yet determined or been convinced that the construction organization ought also to be the operating one. But highway transport safety and economy can be reached only through adequate facil-

ities properly used. The major problem must be met by these competent engineering organizations. It must be met in the large way by the State and Federal highway organizations of this country.—American Highways.

OLDEST TAX

The idea of a highway tax is "old stuff." Back in 1661, during the time of King Charles II in England there were 400 hacks that were licensed for operation in London, Westminster and a vicinity of six miles. The money was used to pave the streets.—New Hampshire Highways.

Opposite extremes produce similar effects, in other words cold facts sometimes burn.

During 1924 Oklahoma registrations for motor vehicles showed an increase of 20.5 per cent over 1923. The average increase for the United States was 16.6 per cent.

Nebraska has joined the gasoline tax ranks for road purposes. The Legislature in that State this spring passed a law providing for a two-cent per gallon tax and apportioned it all to state highway construction and maintenance.

Florida, Her Present and Future Possibilities

By CARY A. HARDEE, Governor (1921-25), in "The South's Development" (Published by the Manufacturers Record)

If the progress and prosperity of the country depends upon its people, its climate and its soil, Florida is destined to take first rank among all the States.

Her people as a class are of the same general type as those of the other Southern States, than which, in energy, resourcefulness, courage and moral character there has not yet been produced a finer type. They belong to the same class of people exactly as those who have builded in little more than half a century from the wreck and ruin of the most devastating war of history, one of the greatest empires on earth.

Among the States, Florida has only one competitor in climate. There both the heat in summer and the cold in winter are more intense than they are in Florida, often rising above one hundred degrees in summer and falling below twenty-five degrees in winter. In that State the rainfall is so scant that irrigation is necessary to the production of all crops. In Florida, the rainfall is reliable and abundant during practically all seasons.

In that part of Florida which lies below the same parallel, the temperature seldom rises above ninety degrees or falls below thirty-two degrees, and during the hottest periods of summer when other sections of the country are sweltering in intense humid heat, the air is always cooled by refreshing breezes from the Gulf, so there are few nights when some covering is not comfortable.

The Peninsular of Florida—particularly on the west and east coasts, with their innumerable bathing beaches and splendid hotel accommodations and hundreds of miles of hard surface roads—is fast becoming as popular a summer resort as the mountainous sections of the Middle and Northern States.

No other State equals Florida in the variety, fertility and productivity of her soils and in no other section of the United States can land be found that will produce so abundantly two or three crops a year with so little labor, nor can there be found anywhere land that will produce, with careful and industrious and intelligent cultivation, crops of a net value of from \$200 to \$1,000 per acre that can still be bought at from \$50 to \$200 per acre.

Agriculture has always been and will continue to be the chief support of civilization. Florida, with her two hundred and fifty different varieties of crops, fruits and vegetables, all of which grow well, is first of all an agricultural State. No other State equals her in this respect. Her citrus fruit crop last year consisting, as it did, of more than 21,000,000 boxes, sold for enough to repay what the United States paid Spain for the whole territory which she purchased, four times over, leaving a considerable margin to spare.

There were also shipped from the State during that year 100,000 carloads of other fruits and vegetables, including cabbage, tomatoes, peppers, cucumbers, strawberries, pineapples and celery. It is said that Florida produces more potatoes than Maine and more celery than Michigan.

In one year Florida's 50,000 farmers put into the

market \$80,000,000 of crops from less than 2,000,000 acres of land and kept on hand stock cattle worth \$25,000,000, horses and mules worth \$14,000,000, hogs worth \$6,000,000, milk cows worth \$2,500,000 and thoroughbred cattle worth approximately \$2,000,000.

She has produced 17,000,000 bushels of corn in one year, 5,000,000 bushels of peanuts, 2,000,000 bushels of velvet beans, 3,500,000 gallons of syrup and 4,000,000 pounds of tobacco. These agricultural products were grown on 2,000,000 acres and she has 20,000,000 more acres of the same type of soil undeveloped, about 4,000,000 acres of which lie in the far-famed Everglades, which consists of a muck deposit varying in thickness from two to eighteen feet deep. Most of this vast tract is below the 27th parallel, and is nearly half as large as the State of Maryland.

She has in her waters more than 600 varieties of fish, and her fish and oyster industry—which is yet in its infancy—is worth more than \$20,000,000 annually. And it is said that if all the oyster beds in the United States were exhausted, the oyster beds around Apalachicola and the few other Florida ports would produce, with intelligent and skilled development, an abundant supply for the needs of the entire nation.

It may not be generally known that the largest sponge industry in America is at Tarpon Springs on the West Coast of Florida. In this industry alone more than seventy-five vessels are engaged.

Florida is not usually classed as a mining State, but in one year her phosphate mines yielded \$19,000,000 and her Fullers-earth production yielded \$1,600,000; and it is estimated that she has in reserve 212,000,000 tons of phosphate.

Her 500 saw mills turn out over one billion feet of lumber annually, the products of which are worth about \$40,000,000. And she produces more naval stores than any other State.

Florida is not classed as a manufacturing State, yet the capital invested in her manufactories increased from \$3,000,000 in 1880 to more than \$200,000,000 in 1920 and the value of her manufactured products increased from \$5,000,000 in 1880 to \$200,000,000 in 1920.

Florida, with a population of only about 1,000,000, increased her highway expenditures from \$400,000 in 1904 to more than \$10,000,000 in 1922, and her railway mileage from 518 miles in 1880 to 5,000 miles in 1921. And her school expenditures from \$700,000 in 1900 to \$10,700,000 in 1923.

In 1910 Florida had 43 national banks with resources of \$46,000,000; in 1922 she had 61 national banks with resources of more than \$126,000,000 and in 1923 Florida's national bank resources were over \$156,000,000. In 1900 she had on deposit in her savings banks, private banks and trust companies \$3,700,000. In 1923 these deposits had increased to \$129,400,000. Total deposits in all banks in Florida in 1923 amounted to over \$224,000,000.

In 1900 all kinds of property in Florida was esti-

mated to be worth \$355,700,000 which in 1922 had increased to \$2,440,900,000. This was an increase of more than 586 per cent.

Is a low percentage of failures among farmers an index to a State's progress and prosperity? In 1923 the percentage of bankruptcies among farmers in Florida was 13.4 per cent below the average in the United States.

Florida, with her 20,000,000 acres of yet untouched fertile soil, her abundant rainfall, her 1,200 miles of sea coast, her rapidly growing cities, splendid schools and public libraries, her health-giving and restoring climate, her low death rate, her abundant game supply, her bathing beaches and golf links, her railroad facilities and hundreds of miles of hard-surface roads, offers unexcelled attractions and opportunities to the farmer, the stock-raiser, the dairyman, the homeseeker and the capitalist. And these and many others are flocking to the State in ever-increasing numbers.

He would be reckless, indeed, who would undertake to place a limit to her developments in any direction either in the immediate or more distant future.

Remains of the first recorded roads are still in existence. They were built by the Assyrian Empire about 1900 B. C., and like the spokes in a wheel, radiated from Babylon to the corners of the empire.

A Sermon

(An Editorial From the National Sand and Gravel Bulletin)

In a newspaper story about the horror that followed in the wake of the death-dealing tornado which recently swept through the Middle West there appeared the following significant item: "Rescue workers are handicapped in reaching Murpheysboro, for the concrete highways into the city are not completed and the dirt roads are a mass of mud."

Experience is indeed the best teacher, although it taught its lesson in this instance by the loss of many lives and the untold suffering of those who managed to survive this terrifying display of the supremacy of Nature.

"The dirt roads are a mass of mud." What a sermon is crowded into those few words, and what a volume it speaks for the necessity of highways which present a means of easy transportation under any conditions.

Of all inventions, with the exceptions of the alphabet and the printing press, those which abridge distances have done the most for mankind.—Macaulay.



Another Improved Highway Built with State Forces.

Federal Aid for Highways Should Be Continued

THE FEDERAL GOVERNMENT has undertaken to aid the states in building a system of main arterial highways for the nation and it is to the interest of every citizen to see that the work is continued. Federal aid has been very largely responsible for the remarkable progress in road construction in recent years. Initiated in 1916, when only a few states were actively improving roads and many of them without a highway department or a definite program for financing or construction, it has been the incentive for the establishment and strengthening of highway departments and the general progressive movement in highway construction.

At the present time a system of approximately 170,000 miles has been designated for improvement with federal aid. This in itself is no small accomplishment since differences of opinion over the selection of highways for improvement are always to be encountered. On November 30th, last year, 36,000 miles had been completed with federal aid and nearly 19,000 miles were under construction. Since 1921 construction has progressed smoothly at the rate of from eight to ten thousand miles a year and additional mileage has been constructed independent of federal aid. It is estimated that about ten years will be required to complete this primary system.

The problem before us is very definite. If we want a complete system of main highways connecting each state of our country, federal aid must be continued. Without its incentive some of the states will lag behind. In some of the western states it is more than an incentive—it is essential that the limited resources of these sparsely settled commonwealths be supplemented by federal aid in order that the main transcontinental roads may be completed.

We have gone too far with this plan to lay down the pick and shovel now. Experience in every state advanced in highway construction shows that the greater benefit and satisfaction on the part of the public is not felt until the gaps in the main roads begin to close. We are just now beginning to close the gaps in important routes in most of the states.

Experience has shown that the saving in fuel alone makes it cheaper to improve our main roads than not to improve them. Highway traffic has developed far beyond anything anticipated a few years ago. There is not a community in the country which does not or will not derive benefit from improved highway transportation. In the months of heaviest traffic the motor vehicles alone of the country travel a daily average of 300,000,000 miles. A very large proportion of this traffic is concentrated on the routes of the federal aid highway system and since the need already exists construction should proceed as fast as resources in the shape of labor and materials permit.

Having been largely instrumental in bringing about federal aid to highways, the American Automobile Association will use every legitimate effort to expedite the completion of this great system which, when finished, will be a third greater than the national highway systems of all the other nations in the world combined.

AMERICAN AUTOMOBILE ASSOCIATION

GOOD ROADS BOARD •

Richard Haldeman, *Chairman*

THOMAS P. HENRY,

President

A DECISION WANTED

The big car was speeding toward a railroad crossing when a fast-moving freight train moved into sight. Immediately the two men in the front seat began an argument as to whether or not they could beat the train.

"Don't get excited" cried the driver. "I tell you I can easily make it."

"And I tell you y' can't!" shouted the other man. "The train will beat us by minutes."

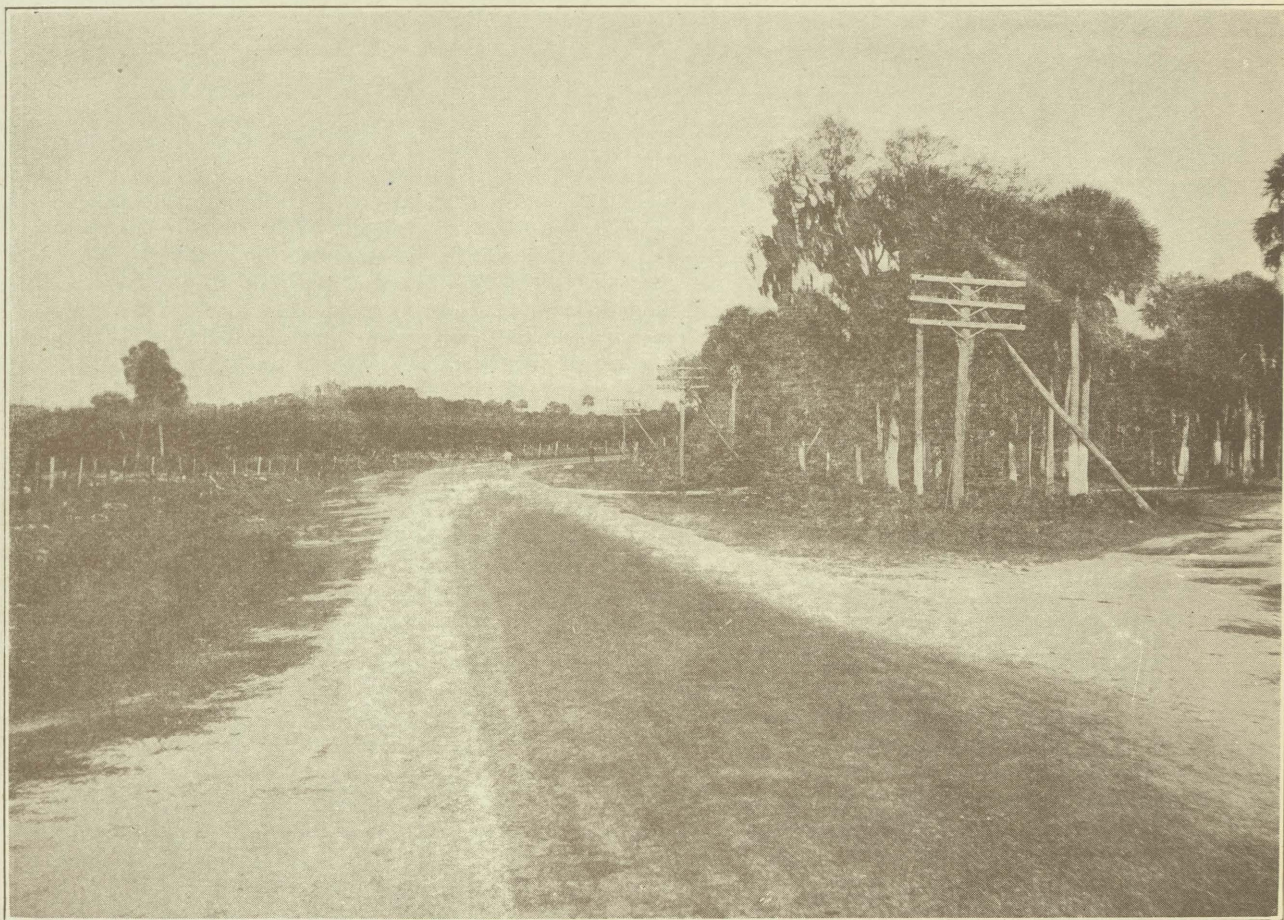
The driver kept increasing the speed of the car while the argument continued. Finally, the man in

the rear seat, who, up to this time, had remained quiet, frantically clutching the sides of the car, could stand it no longer.

"Well," he shouted, "I don't give a damn who wins this race, but I hope it ain't no tie."—Judge.

Jazz artists are using the saw as a musical instrument, and listeners may yet find a new use for the axe.—Muskogee Phoenix.

The straight and narrow path is plenty wide for its traffic.—Wichita Times.



Lime Rock Base with surface treatment, Project No. 519, Road No. 5, Manatee County.

Training Children in Habits of Safety on Streets and Highways

A LESSON ON SAFETY

By MRS. MYRTLE A. ROE, Sterling, Colorado

Mrs. Roe's safety lesson was awarded first national honors in the 1923 national safety campaign. She visited Washington the week of April 12 to 18 as the guest of the Highway Education Board and the National Automobile Chamber of Commerce. In behalf of the latter organization she was presented with a check for five hundred dollars by H. H. Rice, Treasurer, at a luncheon at the Cosmos Club, attended by men and women high in official and educational life in the nation's capital.

The President and Mrs. Coolidge Mrs. Roe and Francis B. French, Elizabeth, New Jersey, the boy who won honors in the safety essay contest, in the Blue Room at the White House, and one of Mrs. Roe's treasured possessions becomes the Certificate of Award, prepared by the Highway Education Board, which the president handed her on that occasion.

Mrs. Roe's lesson was chosen by an exceptional committee of educators consisting of Mrs. S. M. N. Marrs, Vice President of the National Congress of Parents and Teachers, Austin, Texas; Dr. W. F. Bond, State Superintendent of Education for Missis-

siippi, and Dr. Charles B. Gleen, City Superintendent of Schools of Birmingham, Alabama, who also awarded second and third national honors in the lesson contest to Miss Edith B. Whitney, Virginia, Minnesota, elementary schools, and to Miss Hazel I. Leland, Burlington, Vermont, respectively. Miss Whitney receives a check for three hundred dollars and Miss Leland a check for two hundred dollars.

Aim:

1. To help the children become familiar with highway safety habits through classroom instruction.
2. To stimulate a desire to practice in every-day life these correct habits.
3. To provide through school activities an opportunity "to learn by doing".

Preparation:

In preparation for this lesson safety books, magazines and bulletins were obtained. The children were given easy access to this material.

The safety bulletins were hung about the classroom. The "do" slogans giving the children positive suggestions for constructive thinking were selected. By

Highways and Things Like That

By COL. HELZ BELZ

Highway engineering is the science which enables restless souls to get elsewhere with the least possible delay, and in the most comfortable manner. It builds the proving ground for the dampfool, and the shortest route to the happy hunting grounds. It also provides the playground for the merry game of "Who's who at the railroad crossing."

The modern highway is the breeding place of bond issues, motgages, dust, discourtesy, speed cops, law-suits, petting parties, hi-jackers, detours, cock-eyed drivers, and other paratistes of polite society. It is the farmer's necessity and the city dweller's Sunday afternoon.

The Romans, so history tells us, built roads in every direction from their capitol. Most of them, however, were built in a horizontal direction, in order to enable Caesar's curio collectors to get their plunder back to Rome before the other fellow got organized to retake it. From their traffic regulations we get the first tip on one-way streets, as we are advised that all roads led to Rome, though every one who has visited that city is very much surprised that they were able to accumulate so much junk in only five or six centuries.

In considering the road-building exploits of the Egyptian, Carthaginian, Babylonian, Roman, and other engineers of the bee see period, we are led to wonder if these ancient dirt movers had anything on us highway experts. While many of our highways do not outlive the bonds that financed them, some of the Roman roads are still live projects after two thousand years. However, history offers no answer as to what the result would have been if they had had to build them with Federal aid. That is probably why this era is known as "the good old days."

An editorial in the "Roman Candle," written by

Heroditus, informs us that Cheops used one hundred thousand men for ten years on the construction of Egyptian State Aid project No. XVIIIICM. Any modern engineer who submitted a project like that would find himself in psychiatric cold storage before the ink got dry on the project statement. Our projects may be shy on lasting qualities, but we know something about first costs, anyway. And we know how to get a job done before the resident engineer has had time to wear out more than two Fords on it.

The Appian Way, also a state project, could not now be built for less than \$250,000 per mile. Incidentally, it has been resurfaced since the Italian equivalent for the flivver made its appearance. For that price we could build a road that would make old Appius Claudius kick the concrete lid off his mausoleum from sheer envy. Just imagine a road surface three feet thick and thirty feet wide, with side walks, electric lights, comfort and filling stations every half-mile, hot dog stands and fur-lined receptacles for coca-cola bottles every sixty-six feet!

It is a funny thing that every goat who tries to get off a few remarks about highways always harks back to the achievements of some foreigner, when, as a matter of fact, one of the oldest known roads is on the American continent. It was built so long ago that the final estimate had to be chipped off the stone slabs that the Ten Commandments were written on. It was nearly two thousand miles long, and was built by the Incas from Quito to Cuzco in the Andes. It was surfaced with stone blocks twenty feet wide and ten feet thick, and had shade trees and a running stream on each side. Most of it was at an elevation of somewhere around twelve thousand feet above sea level. This emphatically disproves the assertion that road materials are higher now than they used to be.—The Louisiana Highway Magazine.

this means a single picture told a specific story more vividly than did pages of type. The children studied these pictures at every opportunity.

Presentation:

First Lesson

The topic "How the Community Aids the Citizen to Protect His Life" was discussed by the class. The principal thought of this lesson was that the citizen's life and safety depend upon the careful observance of laws and regulations made by the community.

In the development of this lesson it was found that constant violation and lax enforcement of highway laws and regulations cause many accidents.

It was impressed upon the pupils mind that the individual who disregards the regulations imposed by the community, even in such slight matter as the speed of his bicycle, is helping to make his city an unsafe and unpleasant place in which to live; that the individual who obeys the regulations and traffic rules is helping to make his city a safe and desirable place in which to live.

A large graph was then presented showing the seriousness of the accident hazard resulting from the tremendous increase in automobile traffic during the past ten years.

The graph was plotted from available yearly records of automobile fatalities and the total number of automobiles registered, showing how the number of accidents had increased in direct ratio with the number of automobiles in use.

In 1912 with one million registered cars in use, there were 3,000 automobile fatalities. In 1922 with twelve million automobiles registered, approximately 14,000 persons were killed in traffic accidents.

Approximately each increase of a million automobiles in use added 1,000 to the death toll.

While increasing at an alarming rate, the number of deaths, however, has not increased as rapidly as the density of traffic.

No doubt the increase in the number of accidents would have been at a higher rate if safety measures had not been used. Speed regulations, traffic rules, licensing of drivers, safety education for the motorist

and pedestrian have been effective. But judging from the statistical facts presented, not every citizen has learned to "play safe."

A second chart was then presented. Perhaps the most alarming feature of the automobile accident is the high mortality among children. The data used in this graph had been compiled from the publications of the United Bureau of the Census. The distribution of fatalities from 1918 to 1922 by age groups was fairly uniform from year to year. One-third of all persons killed by automobile accidents in 1922 were children under fifteen years. The least number of fatal accidents occur to children under five years. The greatest number of fatalities among children under fifteen occur between the ages of five and nine years.

The pupils began to realize the seriousness of the automobile hazard resulting from the tremendous increase in traffic. They felt a sense of their responsibility.

Copies of the Council of National Defense Code of General Highway Traffic Regulations for motorists and pedestrians were handed out.

The class was dismissed with these questions:

What traffic rules must you know to help the citizen protect his life?

If you are interested in civic affairs, what will you want to do?

What organizations within our school and city will help you?

Second Lesson

The next day the pupils returned with many suggestions.

After some discussion the following traffic rules were selected as the ones to be practiced until they become daily habits:

1. Keep to right on sidewalks and crosswalks.
2. Keep to the left on highways without sidewalks so as to see approaching traffic.
3. Cross the streets at intersections between white lines. Cross the roadway at right angles, never diagonally.
4. Watch and obey the traffic officer's signals.
5. Look to the left and to the right before leaving the curbing.
6. Enter a street car on the right side facing toward it. Use right hand and left foot.
7. Get off car with face forward. Hold on firmly until you reach ground. Use left hand and right foot.
8. On alighting from a car observe traffic before moving.
9. Keep your eyes open at all times.
10. Watch for traffic when it is necessary to pass behind cars.
11. Keep out of railroad yards.
12. Cross crossings cautiously.
13. Keep hands off cars when riding a bicycle.
14. Play on playgrounds and in home yards.
15. Play safe for the other fellow's sake as well as your own.

The Pledge of Carefulness was read. As good citizens of our community a majority expressed a willingness to help make our highways safe.

Now this question arose: What must we do to help make the highways safe?

First step: We must practice the traffic rules which are made for our safety.

Second step: We must try to help other feel the importance of practicing safety habits. We must help younger children especially by setting a good example. We must ask older pupils and adults to cooperate with us.

Third step: With the aid of city officials, we must work out the safety project through our junior council.

The class was dismissed with the following suggestions:

Discover the habits you have which may cause you trouble.

Practice very definitely the habit in which the improvement is desired.

Develop the habit of thinking and doing that which will be helpful to you and your community.

"Learn to do by doing—correctly."

Activities and Devices

The safety project afforded an opportunity for the pupils to carry into every-day actions the lessons learned in the classroom.

The Junior Council is an organization within the school which stimulates a wide range of pupil activities and coordinates them with regular class work. It aims to conserve life, health and property and to cooperate in all civic enterprises concerning the home, school and community.

The unit of the organization is the home room, consisting of thirty or thirty-five pupils, who elect their own chairman and such committees as may be deemed necessary to carry on the various activities of the school. Meetings are held at least once a week for discussion and instructions. The home room teacher acts as adviser. The mayor and city officials cooperate with students in all civic enterprises. The chief of police instructs the pupils in the basic principles of traffic.

The traffic squad is chosen. They direct the traffic about the building. They try to help the principal promote safety in and about the school and city; they warn those who are heedless; they help those who are in danger; in every way they help their classmates to form correct habits on highways.

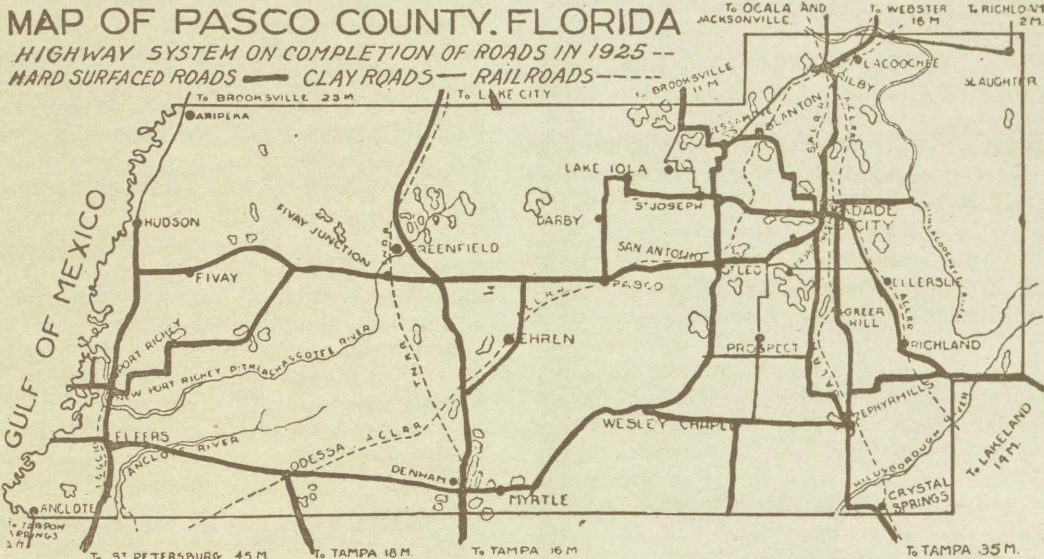
After a conference with the principal and city officials plans were carried back to the home rooms.

The campaign was started. Traffic codes were posted about the buildings. Copies were carried home. A neighboring parochial school of four hundred pupils caught out enthusiasm and joined in our safety project. The pupils practiced the rules they had learned in the classroom. They helped others to form safety habits. They encouraged the little children to cooperate. Older pupils and adults followed the example set by the students. Every one seemed to be catching the safety spirit.

The children realized the importance of safety habits which must become a part of their daily life. More friendly relations exist between city officials and pupils because they have discussed together safe-



Pasco County's New Road System



Through the courtesy of the Pasco County Chamber of Commerce we are enabled to present the foregoing print showing that county's highway system as it will appear upon completion of the construction of the roads made possible under the \$1,330,000.00 bond issue recently authorized.

The following interesting facts in connection with the system are likewise furnished from the same source and reveal a most commendable spirit of progressiveness.

THE ROADS OF PASCO

With the completion of roads to be built under a \$1,330,000 bond issue, construction of which will begin this summer, Pasco County will have approximately 250 miles of hard surfaced roads and 35 miles of sand-clay roads, at a total cost of over \$3,000,000, not including cost of construction of State Road No. 5 within the county.

The new work, contract for part of which was

advertised to be let May 22, calls for bituminous surface on rock base on nearly all the projects. The construction of the remaining roads will be advertised as soon as the Engineer finishes his survey and preliminary work. The hard surfaced roads already built are Finley Method B and C.

The present issue of bonds were sold by the county commissioners in open bidding at a premium of \$353,500.

All the roads with the exception of State Road No. 5 have been or will be built by the county and special road districts, without aid from the State. This includes State Roads Nos. 23, 34 and 15 within the county. State Road No. 5 was built entirely by the State Road Department.

A feature of Pasco County roads are the number of connections with hard surfaced roads in adjoining counties, giving access from every part of the county to all Florida and the North. Of these connecting roads seven are already built and three are included in the new road work to be done this year.

Her Delicate Conscience

Maid—"The new neighbors would like to cut their grass, mum, an' they want to know if you will lend them our lawn-mower."

Mistress (highly shocked)—"Cut their lawn on the Sabbath? Certainly not. Tell them that we haven't one."—London Opinion.

As a rule, that word on the hot-water faucet could be spelled just as accurately with an "N."—Arkansas Gazette.

Remember, however, it is the pursuit of happiness that is an inalienable right, not happiness itself—Newcastle Courier.

Confusing Witnesses

Jenks—"What's the grand idea having your car painted yellow on one side and blue on the other?"

Bangs—"It's great, I'm telling you. You should hear how confused the witnesses are and how they contradict each other in court when I have a damage case on."—Detroit News.

TRAINING CHILDREN IN HABITS OF SAFETY

(Continued from page 18)

ty problems for our city. Students are developing the habit of thinking and doing things which are helpful to them and to our city.

Improvement comes by constant practice. It is pretty certain that if a thing is repeated a sufficient number of times it will have some impression. Now, we look upon the safety project as a drill in habit formation. It gives the child a chance to put classroom instruction into practice. It encourages habits of service; it emphasizes the importance of obeying traffic rules and affords an educational opportunity for the training of American citizens in correct habits on our highways.

In our system the safety project does not cease at the close of the safety campaign. A new safety squad is chosen every three months. The members are instructed by the chief of police and given their stations about the school buildings. At other times they assist the officers on streets during heavy traffic. The pupils follow the directions of their chosen leaders.

Third Lesson

After the campaign was over the following list of questions were prepared for a class review:

1. How many persons were killed in automobile accidents last year? What percentage were children under fifteen years of age?

2. Who is to blame for this extremely alarming situation?

3. Have you felt a sense of responsibility in civic affairs? If so, what did you desire to do? What did you do?

4. How does a boy or girl in our school have an opportunity to assist in community enterprises?

5. What safety habits are you practicing in order to make it more safe for citizens on our highways?

6. Do you favor a safety campaign? Give reasons. The pupils wrote some very interesting compositions. In reply to the last question nearly every child favored the safety campaign. Here are a few of their reasons:

I can work with my classmates in doing something worth while for my community.

I know that the city officials and traffic men are my best friends.

I had a chance to carry into practice the lessons learned in the classroom.

It has taught me safety habits I should know.

Soon after our traffic squad had begun their duties on streets about the building, the following conversation was heard:

The citizen said, "Say, Chief, do you know you almost got me into trouble today?"

"How's that?"

"Well, as I returned to work this afternoon, I thought I'd cut across streets up by the Junior High building. I noticed boys standing on the street corners but gave no particular attention. I started diagonally across the streets. Suddenly one boy addressed me saying, 'Please, sir, will you follow traffic rules?' I asked who had given him instructions. The boy said, 'The Chief of Police.' Well, you know,

I couldn't disobey those boys, so I turned back and crossed the street between the white lines. Those boys will put us older folks to shame if we are not careful."

"Look Under Your Roads"

This is a road-building era. Billions are being spent for highways. History will count our highway systems one of our greatest works.

But a query presents itself. In our hurry to get roads built, are we overlooking some fundamental factors which will insure that these roads will last? Thoughtful tax payers will recall that our rapid program of construction has not allowed for a great deal of experiment—and one very important item has not received all the attention it deserves. This is the road's foundation.

When a new road is considered, there is much talk of the surface material. Will it be concrete, macadam, brick or asphalt? It is natural that the surfacing material should receive first consideration. It's what we see—what we ride over. But what about the road's foundation—the subgrade?

Engineers know that unstable soil, a faulty subgrade moist from water seepage, can destroy the best constructed roads regardless of the surfacing material used. Especially in Northern states, freezing and thawing of a wet subgrade can crack or "heave" any surface. And the settlement of moist soils can ruin roads anywhere.

The Highway Research Board of the National Research Council at Washington is investigating various types of roads. Charles M. Upham, director of the board, announces that the investigation this year will look chiefly into forms of construction devised to resist these adverse subgrade conditions.

The investigation will cover several states, and will undoubtedly result in valuable findings about highway construction. It should be strongly urged that the investigation cover not only the subgrades themselves, but bridges, culverts and ditches, to determine if present materials are correct and if present drainage equipment is adequate.

A valuable slogan for highway officials for the next few years will be "Look Under Your Roads." Road building costs too much to take risks. Let us be sure the fundamental designs are correct.—Illinois Motorist.

FIRST PAVED ROAD

The first paved road in the United States is in Alexandria, Va. The stones used were brought as ballast in ships from Europe, and were laid by Hessian prisoners during the years of the American Revolution. The old pavement is bordered by rows of shade trees.—Illinois Motorist.

For the benefit of the many readers who have asked about the disappearance of the wooden Indian who used to stand in front of the cigar store, it can now be announced that he mounted the dapple-gray horse which once graced the sidewalk before the harness shop and rode into the sunset—American Legion

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ROADS

Florida has 10,250 miles of improved roads; 2,500 miles of paved roads, 7,750 of shell, sand-clay or graded roads, and we are building more all the time. When we realize that it costs one mill to haul a ton one mile by sea; one cent to haul a ton one mile by railroad; seven cents to haul a ton one mile over good road and twenty-five cents to haul a ton a mile over ordinary country road, we can see how valuable our good roads are from a commercial standpoint, to say nothing of the convenience to the million Floridians who travel over them and the 500,000 tourists that come into the state in automobiles every year. The federal government, state, counties and districts are spending \$6,000,000 annually or \$6 per capita on good roads.—Florida's Resources and Inducements. (Published by Commissioner of Agriculture).

The Federal highway system will reach to every town of 5,000 population or over.

40% to 60% of a well-built road is a permanent investment which does not wear out.

Economic studies can determine for any neighborhood what type of road will be self-supporting in lower operating costs.

Federal expenditures for highways have amounted to only 45% of the total received from special Federal motor vehicle excise taxes.

For Better Roads



Yes, they're using

"ENSLEY" & "ALA CITY"
BASIC SLAG
CRUSHED & SCREENED

in all hard surface
roads in Dougherty
County, Ga.

Dougherty County is a firm believer in Basic Slag for road construction.

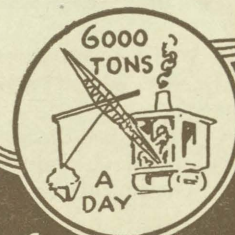
In her first paved highway—F. A. P. 166—3 1-2 miles Asphaltic Concrete—splendid results were obtained with Slag both in wearing surface and base.

Two years later when a 9 1-2 mile Sheet Asphalt road was built Slag was again used. This time in 1 1-2" slag binder course and in five-by-twelve inch slag concrete headers.

The third and last project (F. A. P. 298) 2 miles laid 1924, shown above, is identical in type with the second paving. And uniformly good results again prompted the use of Basic Slag. Always—one good slag road job leads to another.

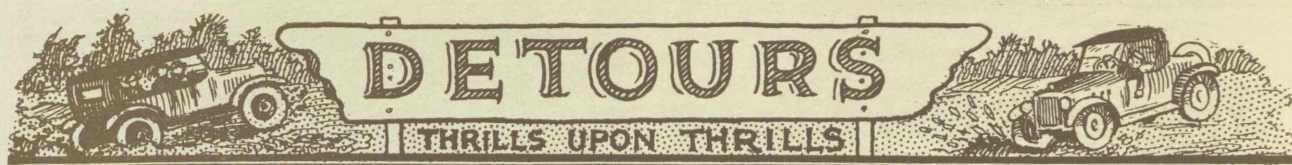
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Missed

"Your son just threw a stone at me."

"Did he hit you?"

"No."

"Then he wasn't my son."—Oklahoma Seabag.

The Bygone Future

Actress—"I want your paper to mention the theft of my jewels."

Reporter—"When did it take place?"

Actress—"Next Monday."—Pele Mele, Paris.

Where Have We Heard That Name Before?

"The worst thing about being a bachelor is that one's name dies with one."

"What is your name?"

"Smith."—Tit-Bits (London).

Holiday Thoughts

Husband—"No, dear—we can't go to Brighton—we must think of all the bills we owe."

Wife—"But can't we think of them down there, dear?"—London Opinion.

Guess Again!

"Henry," she said, "a fortune-teller said that I was going to the Riviera."

"Then call her up, and fix an appointment for me," said her husband. "Perhaps she can tell me where I can get the money."—Liverpool Daily Post and Mercury.

Ruins

The American heiress had just come back from her first trip to Europe. At dinner her neighbor inquired: "Did you see many picturesque old ruins during your trip?"

"Yes," she replied. "And six of them proposed to me."—Irish Weekly Times.

"Where were you last night?"

"It's a lie!"—Toronto Goblin.

Where Time Is Not Money

"Have you forgotten that five dollars you owe me?"

"Not yet; give me time."—Columbia Jester.

Almost Paid For

"I just paid the doctor another ten dollars on his bill."

"Oh, goody! two more payments and the baby's ours."—Saturday Evening Post.

In a short time those of us who jump straight up in the air to dodge one of Henry's flivvers will be in danger of being hit by one of Henry's fliers.—Omaha Bee.

And Folks Wonder

An Oklahoma editor, just about ready to send his forms to press, "pied" a couple of articles—one concerning a public sale and the other a write-up of a wedding. The two were finally put together after this fashion, the mixture not being known until an angry preacher and mother of the bride appeared on the scene:

William Smith and Miss Lucy Anderson were disposed of at a public auction at my barn one mile east of a beautiful cluster of roses on her breast and two white calves before a background of farm implements too numerous to mention in the presence of 70 guests including two milch cows, six mules and bob sled. Rev. Jackson tied the municipal knot with 200 feet of hay rope; the bridal couple left on one John Deer gang plow for an extensive trip with terms to suit the purchaser. They will be at home to their many friends with one good wheelbarrow and a few kitchen utensils, after 10 months from date of sale to responsible parties and some 50 chickens.—Phil Armstrong, in Times-Union.

The Radio Bug

Oh, Ryon, poor Ryon, the radio bug,
He'll be listening in while his grave's being dug.
He monkeys with static and meters and volts,
And he twists little handles and doo-jigger bolts.
He climbs on the table and falls off the roof,
And he thinks the nonradio guy is a goof.
He'll sit up at night with his bakelit box,
Till the cuckoos have cuckooed to death in their clocks
He tunes in on Tampa and then he gets Maine,
And sprains his neck when he thinks he gets Spain.
His wife is a widow, his dog is forlorn,
His mind's in the ether where wave-lengths were born.
He cuts in condensers, reverses his field,
And he throws a fit when his loud-speaker squealed.
He goes to the kitchen to grab a light lunch,
Then back to his head phones to listen and munch.
I tell you its AWFUL—it goes in degrees,
But he sure does swear by that radio disease.

—L. R. Smith, in California Highways.

You're Out

Sam—"Don't yo' go foolin' wid me, boy. Does yo' know who Ah is?"

Rufe—"No. Who am yo'?"

Sam—Ah's de Count Ten, dass who!"—American Legion Weekly.

Very Simple

Little Girl (to grandfather): "Grandpa, why don't you grow hair on your head?"

Grandpa—"Well, why doesn't grass grow on a busy street?"

Little Girl—"Oh, I see; it can't get up through the concrete."—Ex.

Wm. P. McDonald Construction Co.

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Screened and Double Washed

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Copies of the Pittsburgh Laboratory analyses of "DIAMOND SAND" and samples furnished on application.

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PLANT NO. 1
1,000,000 bbls.
annually
Nazareth,
Pa.

PLANT NO. 2
1,500,000 bbls.
annually
Birmingham,
Ala.

PLANT NO. 3
(To be constructed)
New Orleans,
La.

Status of Road Construction

THROUGH FEBRUARY 28TH, 1925

Project No.	Contractor.	Road No.	County	Total Length Miles	Clearing Miles	Grading Miles	Base Miles	Surface Miles	Per Cent Type Complete
26	C. F. Lytle.....	2	Columbia	11.01				1.68	C. 15.30
37-D	Fla. Drainage & Const. Co..	2	Alachua	2.14	2.14	1.07			G 48.10
40-A	C. F. Lytle.....	4	Brevard	16.17	15.52	12.12	9.05	0.00	S.T. 64.00
40-D	J. Y. Wilson.....	4	Brevard	6.72	6.72	6.72	6.72	0.00	S.T. 90.40
40-E	Langston Const. Co.....	4	Brevard	13.60	13.60	13.60	12.78	0.00	S.T. 99.60
43	Wm. P. McDonald Const Co.	2	Marion	10.44	10.44	9.39	5.11	0.00	S.A. 32.00
44	Southern Paving Const. Co.	2	Lake	10.53	10.53	10.42	10.42	7.16	B.C. 85.26
46	B. Booth & Co.....	3	Nassau	11.52	0.00	0.00			G. 0.00
47	Boone & Wester	4	St. Johns	14.96	0.00	0.00			G. 0.00
514	State Forces	1	Jackson	11.00	0.00	0.00		0.00	S.C. 3.80
534-A	J. D. Donahoo & Sons.....	24	Brevard	2.65	2.65	2.17	0.00	0.00	S.T. 82.00
534-B	Noll & Noll.....	24	Brevard	11.85	11.85	11.85	7.58	0.00	S.T. 62.00
564-A	Edgar Chapman & Broad-								
	bent Const. Co.	5	Charlotte	10.88	10.33	7.61	3.80	0.00	S.T. 68.00
564-B	Boone & Wester.....	5	Charlotte	9.86	9.86	9.86		9.86	Marl 100.00
567	State Forces	1	Walton	21.35	20.07	9.82		3.41	S.C. 43.70
571	Hunter & Gladwell.....	1	Madison	14.73	14.73	14.58		9.57	S.C. 91.50
574	Duval Engr. & Const. Co...	9	Madison	11.66	11.66	11.66	6.76	0.00	S.T. 58.00
576	S. T. Buchanan & Broad-								
	bent Const. Co.....	5	Sarasota	5.68	5.68	5.40	2.84	0.00	S.T. 50.00
581	Barnes & Smith.....	5	Hillsboro	12.10	0.00	0.00	0.00	0.00	S.T. 0.00
586	State Forces	1	Jackson and						
			Washington ..	17.37	12.16	9.55		5.90	S.C. 66.50
588	Morgan-Hill Paving Co....	8	Putnam	2.34	2.10	1.17	0.00	0.00	S.A. 5.60
595	State Forces	3	Volusia	6.42	0.00	0.00	0.00	0.00	S.T. 0.00
597	J. Y. Wilson.....	4	Volusia	16.29	16.29	13.03	1.63	0.00	S.T. 36.40
598-A	W. J. Bryson Paving Co....	1	Jefferson	9.45	9.45	9.45		7.93	S.C. 99.00
598-B	State Forces	1	Jefferson	7.80	7.80	7.51		6.63	S.C. 84.00
599	M. M. Boyd.....	2	DeSoto-Charlotte.	7.40	7.40	7.40		7.40	Marl 100.00
604	C. F. Lytle.....	4	Volusia	7.72	7.33	4.63	3.47	0.00	S.T. 57.70
607-B	State Forces	13	Clay	6.76	6.76	5.07	0.00	0.00	S.T. 32.00
608	C. F. Lytle.....	4	Brevard	9.25	9.25	7.86		2.77	C. 41.26
612	State Forces	1	Leon	17.58	16.70	14.06		8.26	S.C. 75.40
613	State Forces	5	Sarasota	4.62	4.16	.55	0.00	0.00	S.T. 3.00
621	State Forces	1	Okaloosa	15.17	0.00	0.00		0.00	S.C. 0.00
623	State Forces	35	Madison	12.32	4.31	4.31		0.00	S.C. 21.20
627	State Forces	2	Putnam	3.70	2.96	2.22	0.00	0.00	S.T. 16.97
628	State Forces	3	Volusia	9.92	9.42	8.43	0.00	0.00	S.T. 18.60
630	Myers Construction Co....	8	Highlands	11.00			5.06	0.00	S.T. 46.00
633	State Forces	1	Gadsden	9.61	0.00	0.00	0.00	0.00	S.C. 0.00
634	State Forces	1	Jackson	11.07	5.53	3.98		2.21	S.C. 36.80
636	C. F. Lytle	8	St. Lucie	12.20			.53	0.00	S.T. 4.40
637	State Forces	10	Leon	18.08	2.71	.72		0.00	S.C. 4.45
639	State Forces	1	Gadsden	9.84	0.00	0.00		0.00	S.C. 0.00
646	Newell Contr. Co.....	10	Franklin	18.50	0.00	0.00			G. 0.00
647	Otis Hardin	8	Highlands	7.00	0.00	0.00			G. 0.00
651	State Forces	6	Calhoun	14.72	0.00	0.00		0.00	S.C. 0.00

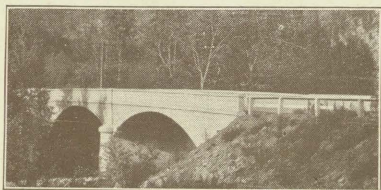
TOTAL MILES COMPLETE

	Concrete	Brick	B.C.	S.A.	B.M.	Asp.	Blk	S.T.	S.C.	Marl	Grad.	Total
Complete February 28, 1926....	108.77	12.44	8.37	42.66	71.50	23.20	270.00	312.47	37.01	20.10		906.52
March, 1925	2.98	0.00	.81	1.74	0.00	0.00	8.73	7.39	.07	.39		22.11
Total to date	111.75	12.44	9.18	44.40	71.50	23.20	278.73	319.86	37.08	20.49		928.63

	Clearing Miles.	Graded Miles.	Base Miles	Surface Miles.
Complete February 28th, 1925	1,018.41	972.17	351.06	896.21
March, 1925	14.45	19.29	14.78	16.89
Total to date	1,032.86	991.46	365.84	913.10

Note—The above tabulation shows only those projects that are actually under construction at the present time and does not show projects that have been previously completed. However, the table, "Total miles completed," at the foot includes all projects that have been completed prior to March 31, 1925, and the amounts completed in March also. The abbreviations used are as follows:

C.—Concrete. S.A.—Sheet asphalt. B.M.—Bituminous macadam. R.—Rock base. S.C.—Sand clay. G. & D.—Graded and drained. S.T.—Surface treated. B. C.—Bituminous concrete.



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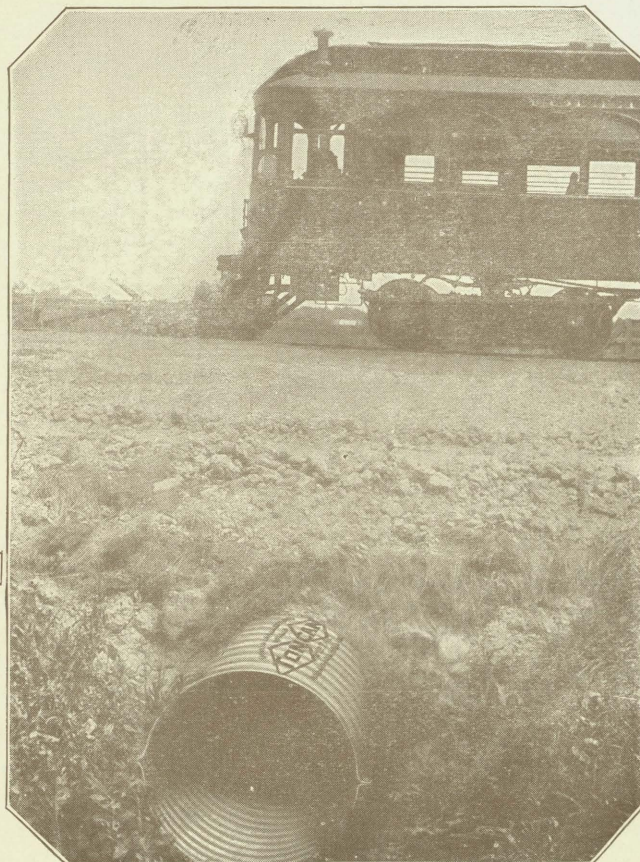


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maintenance
costs



Culverts
reduce
labor
expenses

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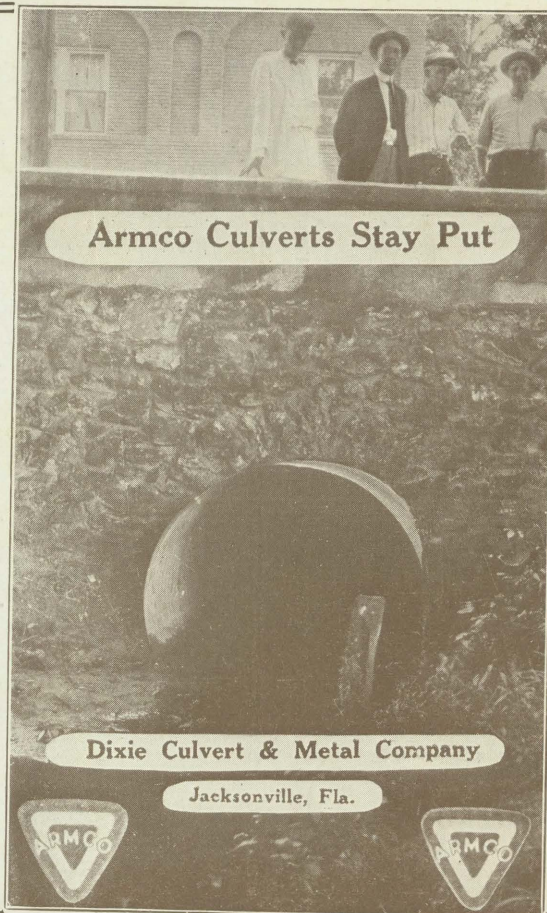
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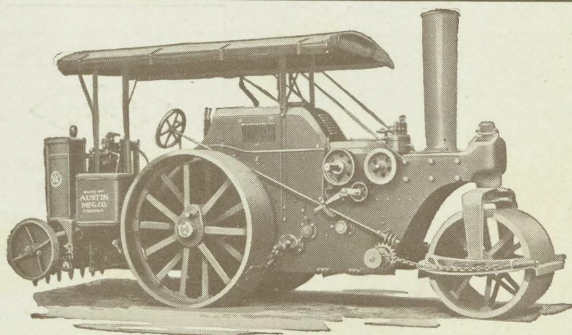


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 By
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